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### Abstract

The invention concerns a play measuring sensor by multiple depth abrasion comprising a probe (7) capable of being mounted on a housing (5) enclosing a gas turbine engine blade rim (2), made of a material capable of being abraded by the tops (3) of the blades (2). The probe (7) comprises a printed circuit having a plurality of U-shaped electric systems whereof the bases (22a to 22e) are arranged in the end of the probe (7) facing the blades (2) and located at different depths (3a to 3e) relative to a reference level defining the inner wall (4) of the housing (5). The sensor is connected to means identifying the intact circuits and the electric circuits cut by abrasion.